Other benefits of healthy trees:
Supply oxygen, provide habitat, increase shade, screen wind, offer shelter and privacy, trap dust and pollen, reduce run-off, recharge ground water, filter sound, increase humidity, improve air quality, control flooding, absorb carbon dioxide, carbon monoxide, and ozone, furnish color, create serenity and tranquility, lower blood pressure and relax brain wave patterns.

To help validate the need to safeguard healthy trees, the CT Fund for the Environment could use special software developed by the USDA. The use of I-Tree assessment software determines the actual value of the tree canopy. Here is a brief description of the benefits of the software (https://www.itreetools.org):

i-Tree
The USDA Forest Service developed a science-based, peer-reviewed computer model designed to
calculate urban forest environmental services and their associated values based upon measurements
taken in the field during inventories or through remote analyses. This analysis and benefits assessment software suite is called i-Tree, and there are currently eight applications that can be utilized in and around urban environments. i-Tree is designed to highlight the significance of community trees and advocate for them as sustainable infrastructure, which assist in pollution mitigation, energy conservation, carbon sequestration, carbon storage, etc. The intention is for i-Tree
users to improve tree and urban forest management through strategic planning, community awareness and advocacy, and engage decision makers and stakeholders.

i-Tree Canopy is utilized to estimate land cover classes within a given project area. The tool uses aerial imagery to classify pre-determined land cover classes. The tool also estimates carbon storage
and sequestration, and air pollution removal amounts and values for tree cover classes. The results
can be used to monitor canopy change over time and can be utilized as input for other i-Tree tools. i-
Tree Canopy results provide a snapshot of the benefits provided by the tree canopy and can be used
as a tool to jumpstart a more in-depth analysis of the project site to achieve a more accurate picture
of the benefits being provided.

The environmental services that i-Tree Canopy reports on are described below:

- Carbon Monoxide (CO) – gas that is produced by products and equipment such as cars and lawn mowers.
- Nitrogen Dioxide (NO2) – gas that is emitted in the exhaust of cars and trucks.
- Ozone (O3) – compound that is formed after the reaction of nitrogen oxides and hydrocarbons.

- Particulate Matter greater than 2.5 microns and less than 10 microns **(**PM10*) – solids created by combustion of fossil fuels, industrial processes, and several other activities (PM10* is an adjusted PM10 concentration where PM2.5 concentrations where subtracted from PM10 concentrations).
- Particulate Matter less than 2.5 microns (PM2.5) – solids created by combustion of fossil fuels, industrial processes, and several other activities.
- Sulfur Dioxide (SO2) – gas produced as a result of coal and oil burning.
- Carbon Dioxide (CO2) – gas that is naturally present in the atmosphere and produced by the combustion of fossil fuels.

I hope this tool can help make the case.
Jane von Trapp

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